ABSTRACT OF THE DISCLOSURE

A coordinate system R is set in which P_0 is a coordinate origin, P_0P_1 conforms to a first U axis to have a unit length, P_0P_2 conforms

5   to a second V axis to have a unit length, and $P_0P_1 \times P_0P_2$ is a unit vector conforming to a third N axis. A transforming matrix M that transforms an ordinary coordinate system into the coordinate system R and the u-, v- and n-coordinate values of the both ends of the line segment are calculated. It is determined whether or not the line

10 segment intersects with the triangle, on the basis of the u-, v- and n-coordinate values. The u-, and v-coordinate values of the intersection point are calculated. It is determined whether or not the intersection point is positioned inside the triangle, on the basis of the u-, and v-coordinate values of the intersection point.

15